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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,267	07/14/2006	Nigel Paul Schofield	M03B327	7751
20411	7590	09/19/2008	EXAMINER	
The BOC Group, Inc. 575 MOUNTAIN AVENUE MURRAY HILL, NJ 07974-2082				TRIEU, THERESA
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/586,267	SCHOFIELD, NIGEL PAUL
	Examiner	Art Unit
	Theresa Trieu	3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 July 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>July 14, 2006</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Receipt and entry of Applicant's Preliminary Amendment filed on July 14, 2006 is acknowledged.

Claims 2-18 have been amended. Claims 19-21 have been added. Accordingly, claims 1-21 are pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: (i.e.: the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets recited in claims 8 and 18).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear how the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets. The specification and drawings must be amended in response to this office action to clarify how to make and use the machine. No new matter may be entered. *35 U.S.C. 132*.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Regarding claims 1 and 11, the claim language "adapted for" makes optional but does not limit the claims 1 and 21 to the structure of the "a screw pump". *See MPEP §2106 II C REVIEW THE CLAIMS*. In other words, it has been held that the recitation that an element is "adapted for" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

- Claims 8 and 18 recite the limitations “the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets ”. Such recitations render the claim indefinite since it does not have detailed supports in the instant specification. Since the claim does not clearly set forth the metes and bounds of the patent protection desired, the scope of the claim is unascertainable.

The claims not specifically mentioned are indefinite since they depended from one of the above claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Frieden (Publication Number DE 19820622).

Regarding claims 1 and 9, Frieden discloses a screw pump comprising a chamber defining with first and second externally threaded rotors 3 mounted on respective shafts (not numbered; however, clearly seen in Fig. 1) and adapted for counter-rotation within the chamber a plurality of flow paths having respective fluid inlets 16.

8. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Klaey (Publication Number GB 2,030,227).

Regarding claim 1, Klaey discloses a screw pump comprising a chamber defining with first and second externally threaded rotors (1a, b; 2a, b) mounted on respective shafts 4 and

adapted for counter-rotation within the chamber a plurality of flow paths having respective fluid inlets 12; a pump body defining the chamber, the body having first and second opposing plates 6, and wherein the fluid inlets 12 are formed in the first plate and a fluid outlet 15 is formed in the second plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klaey in view of Behrends et al. (Behrends) (Patent Number 3,420,180).

Klaey discloses the invention as recited above; however, Klaey fails to disclose a structure of the fluid inlets with respect to the chamber of the screw pump.

Regarding claims 2-7, Behrends teaches that it is conventional in the art to utilize wherein the inlets 32, 34 are located towards or at a common low pressure side of the chamber, and a fluid outlet 16 is located towards or at a common high pressure side of the chamber; wherein the inlets 32, 34 being formed in a common surface defining the chamber 14; wherein the inlets 32, 34 being located on a common plane; wherein the flow paths merging at a fluid outlet 16 of the chamber; wherein the flow paths being arranged such that fluid flows along the flow paths in substantially the same direction; wherein a first flow path (not numbered; however, clearly seen in Fig.) is defined between the internal surface of the chamber 14 and the external surface of the first rotor 20, and a second flow path (not numbered; however, clearly

seen in Fig.) is defined between the internal surface of the chamber 14 and the external surface of the second rotor 22. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the structure of the fluid inlets, as taught by Behrends in the Klaey apparatus, since the use thereof would have provided savings in both cost and space requirements as compared to the use of two separate pumps for pumping the fluids from the two separate sources.

Prior Art

10. The IDS (PTO-1449) filed on July 14, 2006 has been considered. An initialized copy is attached hereto.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents: Densham (U.S. Patent Number 2,580,006), Spindler (U.S. Patent Number 4,068,984), Taniguchi et al. (U.S. Patent Number 6,196,810) and Kogan (U.S. Patent Number 7,395,948), each further discloses a state of the art.

Conclusion

12. Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F.R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any

amendments made to the disclosure. See MPEP §2163.06 II(A), MPEP §2163.06 and MPEP §714.02. The "disclosure" includes the claims, the specification and the drawings.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

/Theresa Trieu/
Primary Examiner, Art Unit 3748